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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,787	10/02/2003	Gregory H. Guinther	EI-7590	9594

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EXAMINER	
TOOMER, CEPHIA D	
ART UNIT	**PAPER NUMBER**
1714	

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/677,787	GUINTHER ET AL.	
	Examiner	Art Unit	
	Cephia D. Toomer	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-17 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-17 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-16 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are rejected because it is not clear if the engine oil is an additive that is included in the diesel fuel or if the oil is already present in the combustion system. Also, does the combustion system comprise at least 3% mass soot loading or is the oil formulated to accommodate this amount of soot loading. Clarification and/or correction are required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-8 and 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dorer 4,664,677.

Dorer teaches a fuel composition for internal combustion comprising a manganese containing compound (see abstract). The teaching of internal combustion engines suggests at least one of the component of claims 12 and 17. The compounds may be inorganic or organic. Examples of the inorganic compounds include manganese oxides, manganese hydroxides and manganese carbonates (see col. 1, line 65 through col. 2, lines 1-2). The organic compounds may be salts of carboxylic sulfonic and phosphorus acid (see col. 2, lines 7-17). The fuel composition contains in an amount of about 1-1000 ppm and the fuel may be diesel (see col. 7, lines 13-18, 26-43; Example VII). The additive may be prepared as a concentrate comprising mineral oil (see col. 7, lines 54-62). Since Dorer is concerned with harmful emissions, it stands to reason that he would employ a low sulfur diesel fuel to further reduce the amount of pollutants.

Dorer teaches the limitations of the claims other than the methods of claims 1 and 15. However, the discovery of a previously unappreciated property of a prior art composition does not render the old composition patentably new to the discoverer. Thus the claiming of a new use, new function, or unknown property does not necessarily make the claims patentable.

Dorer does not teach the limitation regarding soot loading. However, it would be reasonable to expect that Dorer would meet this limitation given that he teaches a

similar diesel fuel containing a manganese compound that is used in the same environment as the fuel composition of Applicant.

6. Claims 1-3 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over 5,944,858.

Wallace teaches a fuel composition comprising one or more fuel soluble manganese carbonyl compounds. The composition improves combustion characteristics such as less soot, smoke, carbonaceous products and noxious emissions (see abstract). The manganese compound may be methylcyclopentadienyl manganese tricarbonyl and is present in the fuel composition in an amount form 0.1-5 ppm (see col. 3, lines 51-54; col. 4, lines 16-18). The fuel may be diesel fuel or fuel derived from vegetable oils (biodiesel) (see col. 12, lines 66-68; col. 13, lines 7-8). Wallace teaches that the diesel fuel meets BS 2869 specifications (sulfur content less than 1%). This amount encompasses 30 ppm sulfur (see col. 13, lines 22-29). The fuel composition also contains solvent neutral oil (engine oil)(see Examples 1-3). Wallace tests his fuel in turbocharged diesel engines (see col. 20, lines 48-50). This teaching encompasses variable-scroll turbochargers/variable geometry turbochargers of claims 12 and 17.

Wallace teaches the limitations of the claims other than the soot loading limitation. However, it would be reasonable to expect that Wallace would meet this limitation given that he teaches a similar diesel fuel containing a manganese compound that is used in the same environment as the fuel composition of Applicant.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cephia D. Toomer
Primary Examiner
Art Unit 1714

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